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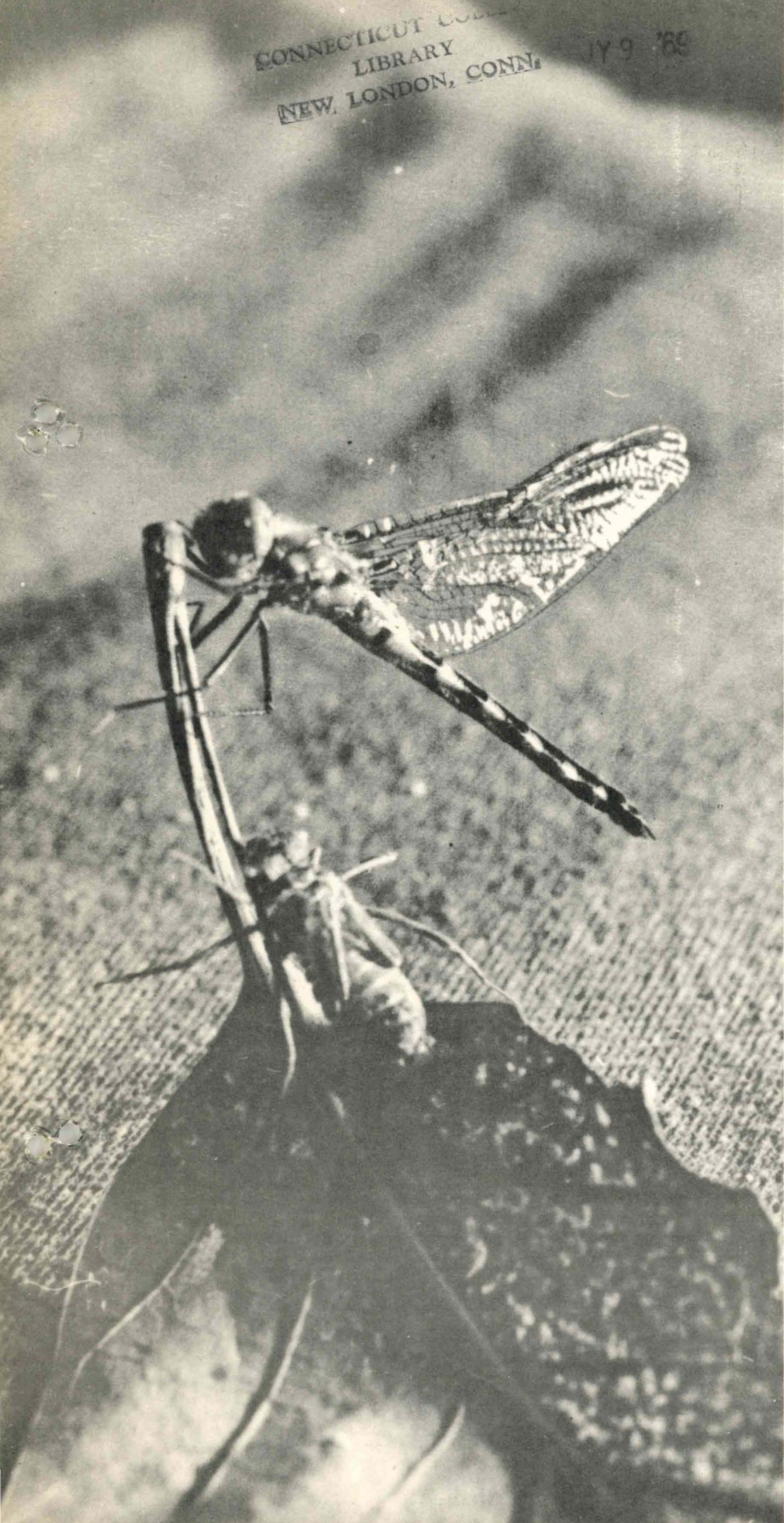
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**JULY
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NATURALIST NOTEBOOK

JULY 1969

VOLUME V

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Metamorphosis"
Photo by J. Walker

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JULY

THE

MONTH OF

DRAGONFLIES

July is the month of dragonflies. These are some of our most spectacular insects. They are among the fastest flying of all the insects and are able to fly backwards - a feat no other insect can duplicate! You have all probably seen some of these creatures at one time or another, particularly around pond areas where they dart back and forth over the water catching insects.

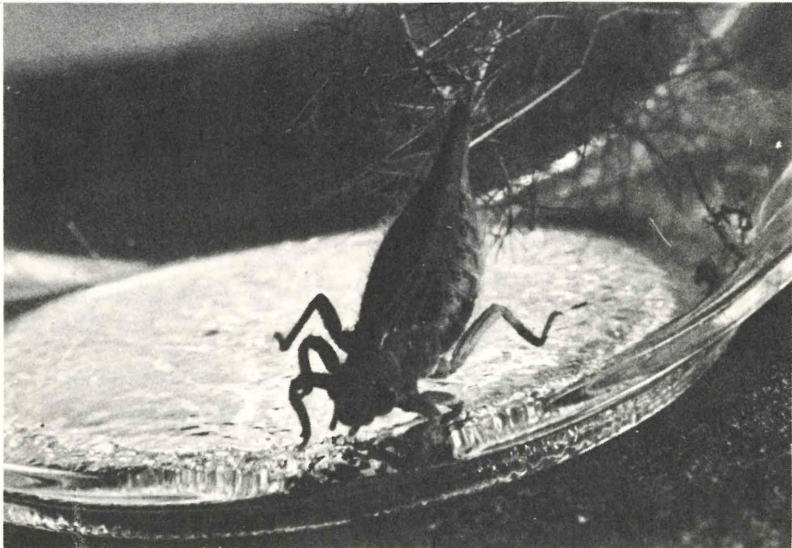


Photo by J. Walker

The eggs are dropped in the water and hatch into an aquatic larva called a nymph. These strange nymphs look nothing like the dragonflies they will turn into. They are fierce predators feeding on other aquatic insects, polliwogs, and small fish.

When they are fully grown, the nymph will climb out of the water on a stick or reed. Securely anchoring himself to the plant, the skin on the nymph's back splits and the adult dragonfly pulls itself free. The empty skin will remain on the reed where you may often see it (see front cover).



Photo by
J. Walker

The new adult spreads its wings to dry them out. They are very soft at first and the insect can't fly. As the wings dry out they become firmer and soon the dragonfly is darting over the pond. In a short span of time he has changed from an animal that lived in the water to a flying animal in the open air.

Next time you go to a pond look at the many different kinds of dragonflies there are. They come in almost every color you can think of. Do not be afraid of them. Contrary to old tales, they will not sew up your mouth!

JULY'S CALENDAR

July is the month of baby birds and thunderstorms.

July 1... White azaleas - one of our sweetest smelling flowers - bloom.

July 2... The year's highest morning high tide.

July 3... Milkweeds are in flower in the fields.

July 4... First sandpipers of the Fall shorebird migration are seen.

July 5... The sun is farthest from the earth on this day.

July 8... Butterfly Weed blooms and lives up to its name by drawing many butterflies to it.

July 10... Young Canada Geese are out with their parents.

July 16... Northward post-breeding dispersal of egrets begins.

July 21... Goldenrods begin flowering and will continue to October.

July 23... Turkscap Lilies are in flower.

July 24... Cedar Waxwings - one of the last nesting birds - begin to nest.

July 27... Cicadas are calling in the trees signalling the last days of summer.

July 28... The full Buck Moon is out.

July 31... Thistles flower in fields making one think of autumn.



TALES FROM PEQUOT HILL

by TRUDY GARDNER

At Pequot Hill you may find many different kinds of insects, all with their own interesting story.

One that I thought you would enjoy knowing about is the Ichneumon Fly or "Old Tracker". It is a fly that hunts down the young of other insects on which to lay its eggs. There are several different kinds of ichneumons. The one I happened to see was a giant of its kind. She had a huge tail that was about 5 inches long which she used as a drill.

When I noticed this insect on the tree it was very hard to believe that what I saw was really happening. Her tail seemed so fragile that you wouldn't think it possible to drill into wood. Yet she drilled a hole a good inch deep and laid her eggs in a tunnel made by a wood borer. The eggs were laid there so that

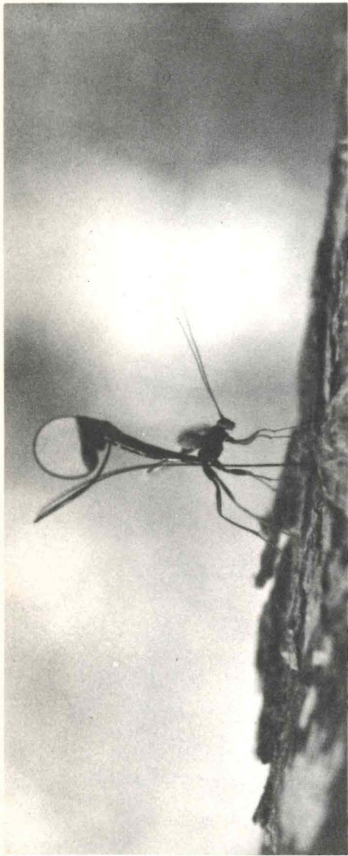


Photo by
J. Walker

when the baby ichneumon hatched out it would feed on the grub of the wood borer.

This tail, which is strong enough to bore into wood can't hurt you. This is because it is not a stinger like a bee. In fact the ichneumon fly can't hurt you at all - it is completely harmless.

The pictures on these two pages were taken by Mrs. Walker and show two of the largest ichneumon flies.

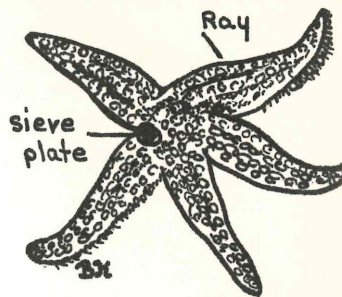
If you want to try and take some photographs, the best place to look is on a dead tree that has been taken over by wood borers. Small pin-like holes in the trunk of the tree indicate the presence of these insects.



Photo by
J. Walker

ALONG THE SHORE

by BARBARA and CATHY KASHANSKI



A Starfish is a member of the phyla Echinodermata. It means spiny-skinned. If you've ever picked up a starfish you will certainly agree with this.

Our Eastern Starfish has five arms or "rays" protruding from its body. On the underside of each of the rays there are structures called "tube feet". The suckers on the tube feet are what the starfish use to move. The suckers attach to hard surfaces and pull the starfish along.

The main part of the starfish is the body part called the central disc. On the central disc is a part called the sieve plate. This lets in food and water the starfish needs. Water is always kept in the canals running along the rays.

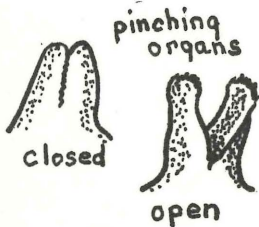
The starfish has the ability to regenerate its parts. If one of its rays break off it will grow a new one. This is what regenerate means.

The starfish breathes by finger-like projections found under the skin.

The starfish enjoys food that maybe you have eaten. Most of his diet is shellfish such as oysters, mussels, scallops, and clams. To open these bivalves, the starfish puts its ray around and

pulls. When those rays get tired it will use a couple of its other rays to continue the pulling. After a while the oyster's muscles get tired and the shell opens up. Then the starfish pushes its stomach out through its mouth and wraps it around the food. The digestive juices in the wall of the stomach of the starfish breaks down the flesh and turns it to fluid food which flows back into the body of the starfish. Quite an unusual way to eat!

The starfish is never found with any other sea animal, like snails or barnacles attached to its back. The explanation for this is that the back of the starfish, particularly around the bases of the spines, have very tiny pinching organs which grab and crush any small animal that lands on its back. These pinching organs are so small they can only be seen with a microscope. If you want to test to see if these little pinchers are there and work, place a starfish upside down on the back of your hand or on your arm where there is plenty of hair. When you start to take the starfish off you will feel the hair being pulled - but the pinchers aren't strong enough to pull the hair out and it really doesn't hurt.



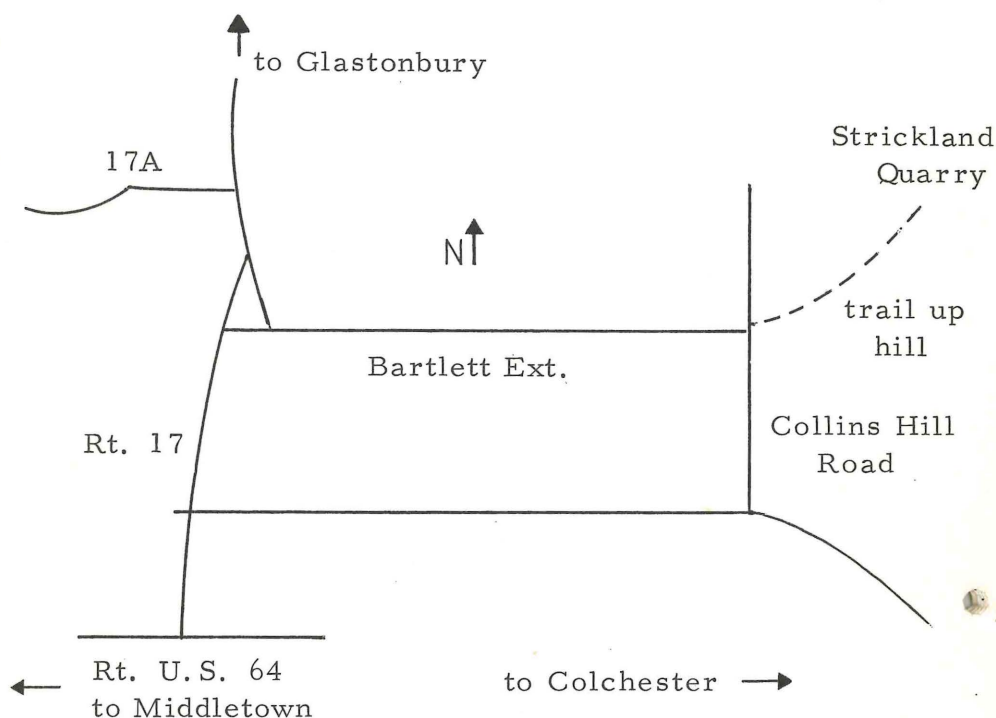
Although the starfish is greatly disliked by anyone who tries to make his living selling shellfish, he is very interesting to us beachcombers.

ROCK HOUNDS

by JERRY THEILER

THE STRICKLAND QUARRY

The Strickland Quarry and dumps are a favorite collecting area for many rock-hounds in New England. Specimens are from an old mine and often a deep hole will offer better specimens than surface digging. A map showing how to get there from Route U.S. 64 is given below.



The area is a typical Pegmatite dike. Among the specimens you should find will be albite, beryl, garnets, tourmaline, large mica plates, lepidolite, spodumene, autunite, and manganapatite.



FROM THE EXECUTIVE DIRECTOR'S DESK

We welcome notice of Conservation activities or problems for inclusion in this section of the Naturalist's Notebook. . . . Please let us know of your local activity so that others may be aware of your efforts and lend their support where possible. . . .

AN OPEN LETTER TO THE MEMBERSHIP:

Dear Member:

By the time you receive this issue of our monthly magazine you will have heard of my decision to resign as your Executive Director to accept the position of Administrator - Naturalist with the Natural Lands Trust, a regional agency in Pennsylvania.

I want to take this opportunity to express my appreciation to each of you - not only because your support made the growth of the Science Center possible, but because your friendship and encouragement made us part of the Southeastern Connecticut Community.

As the weeks go on you will have the opportunity to see the Center begin its new building, expand its programs and activities, and grow to its rightful place in the community. I ask you to lend your continued support to Bob Dewire and Mike Walker and I know that when a new Executive Director assumes his duties that you will welcome and accept him as you did me - then not only will we have a strong membership, but more important, good friends

Sincerely,

John Gardner

GERBILS: If you are planning to move to New Mexico and you have some pet gerbils, then you had better start looking for someone to give them to. The State has banned the importing of these animals. Authorities fear that escapes or released ones might take a liking to the countryside and destroy quantities of crops if their numbers grew. In India, swarms of these rodents destroyed millions of acres of cropland in a single year.

ENDANGERED SPECIES BILL: The Bill designated H. R. 11363 in Congress would empower the Secretary of the Interior to ban imports of endangered species, and also to prohibit interstate traffic in alligator hides taken contrary to State Law. Letters from all of you to your Congressman would be timely now urging support of this Endangered Species Bill when it comes up on the floor of the House.

"WHATZITS": Hartford Electric Light Company has again sent out a most informative brochure along with its monthly bill. This one is called "Whatzits" - A Guide To Connecticut's Seashore Treasure Trove. It tells about some of the interesting things that you can find along Connecticut beaches. The common seaweeds, crabs, and other animals are dealt with. If you did not receive one of these, you may pick one up at the Science Center.

LITTERBUGS: A recent Gallup Poll revealed most Americans think litterbugs are "filthy", "inconsiderate", "thoughtless", "slobs" and "pigs". Yet most of these same people admit to littering just a little bit themselves, but don't relate their littering to the growing national problem that soaked taxpayers for more than \$28 million bucks in 1968.

YOUR OWN NATURE JAUNT

by BOB DEWIRE

Along A Roadside

When you are a passenger on a long drive, a very pleasant way to pass the time is to see how many different kinds of wildlife you can find. A trip in July can be quite interesting and there are numerous things to look for.

Along most of the roads are great numbers of flowers. Many of them would be considered as "weeds" in a backyard, but with many hundreds growing together they are often a striking sight. Some of the most common flowers are the hawkweeds. They look somewhat like very tall dandelions. The most common ones are yellow, but some are a deep orange. Other common wildflowers along a roadside include daisies, buttercups, milkweed, and the very tall plant called mullein.

Besides the flowers, birds are often along the roads, and aside from the regularly seen robins, grackles, and red-wings, there are other interesting species to look for. Hawks are always an exciting bird to see. If you are travelling before 9:00 A. M. , you will usually see hawks sitting in trees along the roads waiting for the temperature to rise so they can soar on the updrafts. After 10:00 A. M. they will be flying and you can often see them circling lazily overhead. If they are low enough and in good light, look at the bird's tail. The two most common hawks are the Red-tailed and Broad-winged Hawks. The Red-tail, as his name indicates, has a red tail while the Broad-wing's tail has wide black and white bands.

Another commonly seen bird is the Turkey Vulture. These large all black birds rarely ever flap their wings. Instead, they soar with their wings at an angle looking like a large "V". This is easy to spot from a distance and is in contrast with the hawks who soar with their wings out flat.

If you are travelling near fields you may see Pheasant and Bobwhites run across the road. Meadowlarks and Bobolinks often sit on wires as do Swallows.



Photo by
J. Walker

Mammals are often seen although unfortunately many are dead having been hit by a car. Along roads where there is grass growing, woodchucks often come out to eat. Chipmunks will often dart across a wooded road holding their little tails up like flags.

There are many things to look for and keeping a list of everything you find can be an interesting way to pass the time when you are going somewhere.

CONNECTICUT CREATURES

by MIKE WALKER

A quiet evening at home. It is late spring, the night is mild, and only the screen door is closed. A porch light burns. Crickets trill from the distant corners of the yard. Small insects swirl around the outside bulb in noiseless orbit.

Suddenly there is the buzzing of a much larger insect. A dark form swoops out of the night, veers erratically around the light, thunks into the screen door, and falls to the porch floor. A moment of silence. Then loud distressed buzzing as the grounded insect tries to gain the air. Its efforts apparently fail as the buzzing continues and changes location as the hapless bug skids around the floor.

Then another of his kind careens drunkenly into the light and eventually also crash lands on the porch. Soon the area around the light is crowded with the miniature dive bombers. They rasp up and down the screen, bounce off the light, crash against the porch roof, and taxi wildly on the floor.

At this point, if you are interested in recapturing the evening's tranquility, you either shut the door or turn off the light. Neither course is usually entirely successful because the intruders simply shift their assaults to a lighted window.

The spring nights now belong to the May beetles or June bugs, as they are variously called. This bumbling beetle is one of our larger insects. An adult may be close to an inch in length with a fat body as thick as the end of your little finger. June bugs are usually light reddish brown in color, although some are so dark as

to appear almost black.

June bugs, although formidable looking creatures have no sting and cannot bite. As adults they feed on the leaves of various plants and trees, occasionally doing considerable damage to forest trees such as oak, ash, and walnut.

Far more destructive is the larval stage of this insect, called the white grub. The female June bug lays several eggs in the earth during the early summer. They rather quickly transform into fat, white grubs that apparently may live in the earth for two years before pupating and then emerging as adult June bugs. The grubs are the size of the end of your little finger and are usually curled into a tight "C" shape when uncovered. They are dull white in color, with six feeble legs growing near the head, which is a dark orange color. While in this stage the grubs attack the roots of grasses, field crops, and a wide range of ornamental shrubs and plants.

Fortunately, Nature provides many natural enemies which help keep the white grub in check. Probably foremost among these is the mole, an insectivorous mammal often wrongly blamed for damage done by the grub. Other grub hunters include shrews, skunk, raccoon and foxes. The adult beetles are on the menus of these mammals and many birds as well. Still, there always seems to be enough left to make summer nights noisy.

FIELD NOTES

May 15 - June 15

With the migration period now over we might look back on it and think 'where were the migrants?' It was indeed a strange year. While an individual or two of each species was reported in the area, there were hardly any flocks of warblers, vireos, and others that are usually seen around mid-May. Where the numbers were, we have no idea. This has happened in the past so that it is not a unique situation. It will be interesting to see what kind of a Fall migration we will have.

Essex, East Haddam: The ACADIAN FLYCATCHER has returned to nest for the second year at Devil's Hopyard. This is the first nesting record since 1906 in the New England area. This bird will be closely observed each year to see if it continues to return. WOOD PEWEES were calling at the Meadow Woods Natural Area in Essex on May 19th.

Waterford, New London: WILD GERANIUM, SWAMP AZALEA, YELLOW LADYSLIPPER, and MAYAPPLES were all in flower in the Arboretum on May 16th. MOUNTAIN LAURELS were out on June 6th. ICHNEUMON FLIES have been around the dead trees by the Science Center since June 9th (see Tales From Pequot Hill, page 4). Late arriving migrants included the BLACKBURNIAN WARBLER at the Arboretum on May 17th and a BLACK-BILLED CUCKOO there on the 18th. The "Big Day" sponsored by the Center on May 24th ended with a total of 103 species. Top bird of the day was a GLOSSY IBIS at Harkness Park. NIGHTHAWKS were seen at Mary Butler Drive in Waterford on May 30th. A RED-HEADED WOODPECKER was reported from Harkness Park on May 26th and a TRAILL'S FLYCATCHER was there on June 4th. The WINTER WREN is back singing in the wooded area off Great Neck Road where he was last summer. He

should be in northern New England in the mountains. The most interesting bird to come to a feeder has to be the large brilliant green PARROT that has been coming to the feeder on Shore Road in Waterford. It was a striking thing to see with its large yellow bill.

Groton, Mystic, Stonington: TULIP TREES flowered in Mystic on June 13th. PINK LADYSLIPPERS flowered at the Peace Sanctuary on May 17 and FALSE SOLOMON SEAL or SPIKENARD flowered on the 20th. June 10th was the flowering date at the Sanctuary for COW-WHEAT. A HONEY BEE SWARM was at the Sanctuary from June 2 to the 7th. They all clung to a black oak branch in a ball the size of a cocoanut. A drake CANVASBACK showed up on the Mystic River on May 31st and stayed about a week. At Barn Island, there was an AMERICAN BITTERN on May 24th and GRASSHOPPER SPARROWS were singing the same day; TREE FROGS were calling on May 28th and a RED FOX was seen the same evening. A GLOSSY IBIS was also there on May 19th. The LEAST BITTERN was first seen in the first impoundment on May 28th. A KING RAIL and a MARSH HAWK were seen at Bluff Point on June 6th.

Contributors to this Column were: Mr. & Mrs. Kenneth Bates, Grace Bissell, Lawrence Brooks, Bob & Mary Jean Dewire, John J. Gardner, Helen Gilman, Mary Laffargue, Mrs. Enders Richards, and Paul Spitzer.

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ACTIVITIES FOR JULY

EVENING FIELD TRIPS: These trips are a pleasant and relaxing way to spend an evening. Birds, plants, and shore life may be observed. They are open to the public. The trips for this month are as follows:

July 9..... 6:30 P.M. Harkness Memorial State Park.
Beachcombing and bird watching. Meet
at the Harkness Parking Lot.

July 16..... 6:30 P.M. The Peace Sanctuary. A trip
through the property maintained by the
Science Center. Meet at the entrance to
the Sanctuary on River Road in Mystic.

July 23..... 6:30 P.M. Barn Island. Viewing life in a
marsh. Interested persons should meet at
the State Boat Landing at Barn Island.

SUMMER ENVIRONMENTAL SCIENCE STUDY DAY CAMP

Openings are still available in the Center's Summer Program for children in Grades 4, 5, and 6 in the following sessions.

Session III.. July 28 - Aug. 8 ... Lyme Natural Area

Session IV... Aug. 11 - Aug. 22... Private Beach in
Waterford

Parents wishing to send their children to these programs should contact the Science Center at least 10 days before the opening of a session.

NATURALIST NOTEBOOK

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JOHN F. GARDNER--*Executive Director*
ROBERT C. DEWIRE--*Naturalist*
MICHAEL WALKER--*Curator*

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The active support of children and adults in the Science Center, its programs, activities and efforts is earnestly solicited.

John F. Gardner
Editor

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